



## Sample Paper 7

Score for Organization \_\_\_\_\_

# Worms Are Everywhere (and That's Good!)

If you compare what it takes to make an earthworm happy with what it takes to make a typical eighth grader happy, you will find they're basically identical. Food, water, oxygen, and decent temperature conditions—that's all an earthworm really needs or wants. Given these conditions, earthworms will flourish and even help you, not unlike eighth graders.

Earthworms really are *everywhere*. (Again, much like eighth graders.) In one acre of land there could be up to a million worms. Don't freak out, though. Most of them are underground doing their wormy work. And what exactly is that? They're constantly tilling, breaking up and moving the soil. As they tunnel down, search out, and eat organic plant matter, worms mix topsoil with subsoil. They create excellent fertilizer in the process. Their castings (also known as *excretions* or simply, *worm poop*) are very rich in nitrogen, soil microbes, phosphates and other nutrients, creating an outstanding fertilizer for plants and lawns. Gardeners revere worms; so do golf course maintenance people. Worm castings are clean and odorless, and can actually be created by composting kitchen and yard waste. (Read up on *vermicomposting*, and you could build your very own worm bin for composting and creating worm fertilizer. It's easy, organic, and cheap.)

Earthworms do need one more thing to flourish, and that is, of course, other earthworms. Some people believe that the reason you see so many earthworms after heavy rains is that they came to the surface to avoid drowning. Since they breathe through their skin, however, worms



can live under water for a time; they have no lungs to fill with water. Actually, they come out to look for mates. When the ground is wet, they can get around so much more easily (increased mobility) while checking out the other worms.

The next time you look at your yard or a grass field at school, think about all that is going on just under the surface—worms munching on dead leaves or plant parts, composting, fertilizing, and moving the soil right beneath your feet, all the while looking forward to the next shower. And when it rains and the worms come out, tell them they're looking good, and give them some space. You go, worms!

### Sources

Mary Appelhoff. *Worms Eat My Garbage: How to Set Up and Maintain a Worm Composting System*. Kalamazoo, MI: Flower Press, 1997.

Nancarrow, Loren and Taylor, Janet Hogan. *The Worm Book: The Complete Guide to Gardening and Composting with Worms*. Berkeley, CA: Ten Speed Press, 1998.

Payne, Binet. 1999. *The Worm Café, Mid-Scale Vermicomposting of Lunchroom Wastes*. Kalamazoo, MI: Flower Press, 1999.

<http://yucky.discovery.com/flash/worm/pg000102.html>

<http://www.veggiegardeningtips.com/earthworm-castings/>